	MATERIAL SAFETY DATA SHEET		Page 1 of 12
Name of the Product: PATROL 2,5 WG	Code N°	Revision	Date
Registry N°: 14.394	HS-7089	1	09-07-15

I.- IDENTIFICATION OF THE MIXTURE AND OF THE COMPANY

1.1 Product identifier: PATROL 2,5 WG (Lambda cyhalothrin 2.5% WG).

1.2 Relevant identified uses of the mixture and uses advised against: Plant Protection Product: Agricultural Insecticide only with Lambda cyhalothrin as active substance.

1.3 Details of the supplier of the safety data sheet:

Industrias AFRASA, S.A.
 c/ Ciudad de Sevilla, 53. Tel: 96 132 17 00, Fax: 96 132 17 16,
 46988 Pol. Ind. Fuente del Jarro. Paterna. VALENCIA (ESPAÑA)
www.afrasa.es afrasa@afrasa.es fmonfort@afrasa.es

1.4 Emergency telephone number:

National advisory body/Poison Center Telephone number: 210 7793777.

II.- HAZARDS IDENTIFICATION

2.1 Classification of the mixture:

According to classification rules (UE) of 1272/2008 (CLP): Acute tox. Cat 4; Aquatic chronic. Cat 1.

2.2 Label elements:

According to classification 1272/2008 (CLP):

Pictogram:



Signal word: Warning.

Hazard statements:

H302: Harmful if swallowed.

H410: Very toxic to aquatic life with long lasting effects.

EUH401: To avoid risks to human health and the environment, comply with the instructions for use.

General precautionary Statements:

P101: If medical advice is needed, have product container or label at hand.

Prevention precautionary statements:

P270: Do not eat, drink or smoke when using this product.

Response precautionary statements:

P301+P312: IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.

P330: Rinse mouth.

Storage precautionary statements:


P405+ P102: Store locked up. Keep out the reach of the children.

Disposal precautionary statements:

Sp1: Do not contaminate water with the preparation or packaging.

SPe3- To protect aquatic organisms leave an unsprayed buffer zone 30 meters from surface waters for tree crops, 20 m for potatoes.

SPe3- To protect non-target arthropods to leave an unsprayed buffer zone 10 meters from the non-agricultural land for tree crops, and 5 meters for other crops.

	MATERIAL SAFETY DATA SHEET			Page 2 of 12
Name of the Product: PATROL 2,5 WG	Code N°	Revision	Date	
Registry N°: 14.394	HS-7089	1	09-07-15	

SPe8- Dangerous to bees. To protect bees and other pollinating insects do not use on crops in flowering or during flowering Remove weeds and / or destroy weeds before flowering. Do not use product during the period when bees collect.

2.3 Other hazards:

Formulation: A water dispersible granule containing 2.5% w/w Lambda-Cyhalothrin.



Potential Health Effects: Harmful

Carcinogenicity Information

None of the components present in this material at concentrations equal to or greater than 0.1% are listed by IARC, NTP, OSHA or ACGIH as a carcinogen.

III.- COMPOSITION / INFORMATION ON INGREDIENTS

Mixtures :

DANGEROUS COMPONENT	IDENTIFIERS CAS nr./ CE nr. REACH Nr.	% w/w	CE Classification <i>REGULATION (CE) 1272/2008 [CLP]</i>
<i>LAMBDA-CYHALOTHRIN</i> 50:50 mixture of: (S)- α -cyano- 3-phenoxybenzyl (Z) (1R, 3R)-3-(2-chloro-3,3,3-trifluoroprop-1-enyl)-2,2-dimethyl cyclopropane carboxylate **(R)- α -ciano-3-phenoxybenzyl(Z)-(1S,3S)-3-(2-chloro-3,3,3-trifluoroprop-1-enyl)-2,2-dimethylcyclopropane carboxylate $C_{23}H_{19}ClF_3NO_3$	91465-08-6 / 415-130-7	2.5%	Acute Tox. Cat.2: H330 Acute Tox. Cat.3:H301 Acute Tox. Cat.4: H312 Aquatic Acute Cat.1 Aquatic Chronic Cat.1: H410  ;  Danger

Full text of hazards statements in section XVI.

IV.- FIRST AID MEASURES

4.1 Description of first aid measures:

General instructions:

Remove victim from exposure area to fresh air. Remove and wash contaminated clothing immediately. Wash thoroughly with soap and water without rubbing (if there are no burns) for 15-20 minutes.

Control of breathing: artificial respiration if necessary. Keep airway clear if vomiting.

Keep patient at rest. Maintain body temperature. If the victim is unconscious, lying on her / his part with the head lower than the rest of the body and the knees bent in half.

Warning: risk of hypersensitivity reaction with bronchospasm.


Take the victim to the nearest medical facilities. Show the label or container, if possible.

DO NOT LEAVE VICTIM UNATTENDED.

Eye contact: If in eyes, flush with water for 15 minutes. Rinse thoroughly with plenty of water, also under the eyelids. Keep eye wide open while rinsing. If persistent eye irritation, consult a specialist.

Skin contact: Immediately take off contaminated clothing and footwear and flush skin with plenty of water. Wash affected area thoroughly with soap and water (if there are no burns) without rubbing. Consult a doctor if skin irritations or allergic reactions occur. Wash contaminated clothing before reuse.

Ingestion: If swallowed: Rinse mouth with clear water (only if the person is conscious). **DO NOT INDUCE VOMITING.** Seek medical attention immediately. Show the label or container, if possible.

	MATERIAL SAFETY DATA SHEET		Page 3 of 12
Name of the Product: PATROL 2,5 WG	Code N°	Revision	Date
Registry N°: 14.394	HS-7089	1	09-07-15

Inhalation: Remove victim to fresh air and keep him at rest. Seek medical advice. Artificial respiration if necessary. Consult a doctor.

Antidote: no specific antidote available. Treat symptomatically.

4.2 Most important symptoms and effects, both acute and delayed. Potential acute health effects:

Symptoms: blocks nerve transmission iperstimolando pre-postsinapticamente neuronal endings. Particular sensitivity on the part of patients with asthma and allergies, as well as children.

CNS symptoms: tremors, convulsions, ataxia, respiratory tract irritation: runny nose, cough, dyspnea, and bronchospasm; trigger allergic reactions such as anaphylaxis, hyperthermia, sweating, skin edema, peripheral vascular collapse.

Treatment: Symptomatic and resuscitation. Contraindications: --- Warning: Consult a poison control center.

Irritant effects. Nausea, Vomiting, Diarrhea. Repeated skin contact may cause allergic skin rashes. Eye contact may cause eye discomfort, redness, tearing, or blurring of vision.

4.3 Indication of any immediate medical attention and special treatment needed:

Notes to physician: Treatment: If swallowed, the stomach should be emptied by gastric lavage under medical supervision. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Specific treatments: No specific treatment

V.- FIREFIGHTING MEASURES

5.1 Extinguishing media:

Suitable extinguishing media: Use dry chemical, CO2, water spray (fog) or foam.

Unsuitable extinguishing media: Jet streams of water (contamination risk).

5.2 Special hazards arising from the substance or mixture:

Hazards from the substance or mixture: No specific fire or explosion hazard.

Hazardous thermal decomposition products: Decomposition products may include the following materials: Possible harmful fumes in a fire: Carbon monoxide and toxic sulphur, nitrogen and phosphorus oxides can be released. Avoid breathing smoke or fumes.

5.3 Advice for firefighters. Special protective actions for fire fighters: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.


Special protective equipment for fire fighters: Fire'fighters should wear appropriate protective equipment and self' contained breathing apparatus (SCBA) with a full faceshield operated in positive pressure mode. Clothing for fire'fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

Additional information: Call the Fire Brigade at once to deal with all fires involving pesticides unless the fire is small and immediately controllable. Spray unopened containers with a mist spray to keep cool. If without risk, remove intact containers from exposure to fire.

Contain fire-fighting water, bunding if necessary with sand or earth. Collect contaminated extinguishing water separately. Do not allow contamination of public drains or surface or ground waters. Dispose of fire debris and contaminated water as advised in the code of practice for using plant protection products.

VI.- ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:

	MATERIAL SAFETY DATA SHEET		Page 4 of 12
Name of the Product: PATROL 2,5 WG	Code N°	Revision	Date
Registry N°: 14.394	HS-7089	1	09-07-15

For non-emergency personnel: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering.

For emergency responders: Keep upwind. Avoid breathing spray, vapor and dust. Do not use contact lenses. Avoid contact with skin and eyes. Do not touch or walk through spilled material. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate.

Put on appropriate personal protective equipment: (mask, waterproof gloves, rubber boots, work clothes). If specialised clothing is required to deal with the spillage, take note of any information in Section VIII on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

6.2 Environmental precautions: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). The product is very toxic to the aquatic environment if released in large quantities. Keep people and animals away

6.3 Methods and materials for containment and cleaning up:

Small spill: Move containers from spill area. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor.

Large spill: Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor.

6.4 Reference to other sections: See Section I for emergency contact information. See Section VIII for information on appropriate personal protective equipment. See Section XIII for additional waste treatment information.

VII.- HANDLING AND STORAGE

7.1 Precautions for safe handling:

Protective measures: Put on appropriate personal protective equipment (see Section VIII). Do not ingest. Avoid contact with eyes, skin and clothing. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

Observe normal precautions for the handling of chemical products. Keep away from sparks, open flame, excessive heat and sunlight. Take precautionary measures against static electricity discharges.


Do not breathe dust. Use a natural or forced ventilation in handling areas.

Do not eat, drink or smoke during handling. Wash face and hands before eating, drinking or smoking. Do not contaminate water with the product or its packaging. Avoid contaminating water entering through sewage systems, road or farm evacuation systems.

Avoid contaminating waterways by drifts, due to hazards for the aquatic fauna. Maintain a safety area of 10 metres as a buffer zone.

Do not clean the equipment used during the application of the product near surface waters.

Advice on general occupational hygiene: Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section VIII for additional information on hygiene measures.

	MATERIAL SAFETY DATA SHEET		Page 5 of 12
Name of the Product: PATROL 2,5 WG	Code N°	Revision	Date
Registry N°: 14.394	HS-7089	1	09-07-15

7.2 Conditions for safe storage, including any incompatibilities: Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section X) and food and drink.

Store locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination.

Store in tightly closed containers in a safe, cool, dry, well-ventilated area, out of reach of children.

Store away from incompatible materials, strong oxidisers or in conditions of excessive heat. Keep away from ignition sources, open flame and sparks.

Do not eat, drink or smoke in areas which may be contaminated with the product.

Do not to contaminate water, fertilizers, food, fodder or forage. Do not to store at home. Store in places with restricted access. Keep away from foodstuffs, beverages and feed. Protect from direct sunlight and extreme temperatures.

7.3 Specific end use(s): Not available.

Industrial sector specific solutions: Not available.

Handling: No special measures are necessary. Avoid contact with skin and eyes. When using do not eat, drink or smoke. The applicator must use appropriate chemical protective gloves during mixing / loading, application and cleaning of equipment and protective clothing for the trunk and legs.

Risk Mitigation during Handling: "No activities involving contact with the treated crop area or until the product deposited is dry and at least 24 hours after application." Wash all protective clothing after use.

Protection against fire and explosion: Dust explosion hazard. Prevent formation of dust/air mixtures.

Storage: Keep dry and frostproof in a suitable pesticide store. Store separately from food, drink and animal feed

VIII.- EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters

Exposure limit values: No Occupational Exposure limit values established or known by the OSHA, NIOSH or ACGIH or INSHT for lambda-cyhalothrin.

Recommended monitoring procedures: If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to European Standard EN 689 for methods for the assessment of exposure by inhalation to chemical agents and national guidance documents for methods for the determination of hazardous substances.


8.2 Exposure controls:

Appropriate engineering controls: Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Hygiene measures: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.


Maintain workplace clean. Avoid contact with the product. Separate work clothes from other clothes. Change clothes if these are dirty or soaked. Wash hands before each rest period and at the end of the workday.

- **Control of occupational exposure:** Risk Assessment.


	MATERIAL SAFETY DATA SHEET		Page 6 of 12
Name of the Product: PATROL 2,5 WG	Code N°	Revision	Date
Registry N°: 14.394	HS-7089	1	09-07-15

- **Control of professional exposure:** Risk evaluation.


Respiratory protection:

	Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary (complete breathing apparatus with particle filter. Autonomous breathing apparatus in case of accident and during loading/mixing, application, repair and elimination of pesticide). Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. Dust protection mask. If the air purifiers fail to provide adequate protection, use general ventilation system to reduce air concentration level. Decontaminate all personal protective equipment after use. When this is not possible, dispose of as contaminated wastes.
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Hand protection:

	Chemical resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Wear suitable protective clothing and protective gloves made of nitrile rubber at least 0.5mm thick and 300mm long have been found to be the most suitable. Gloves made of viton, butyl rubber, neoprene and PVC can also offer good protection. Gloves must protect the whole hand and wrist and should be thoroughly washed after each operation. Use new gloves when impermeability is not guaranteed.
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Eye protection:

	Safety eyewear complying with an approved standard (adjustable splash-proof safety goggles or mask which resist dust of chemical products) should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts in accordance with the EN166 Standard. Avoid using contact lenses.
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Skin protection and body:

 	Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. Avoid unnecessary contact with the product. Remove contaminated clothing immediately. After handling wash hands and face.
--	---

Environmental exposure controls: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary


Environmental protection

Do not contaminate surface waters or ditches with chemical or used container. Aim spray away from water. Do not apply immediately after rain or irrigation, when plants are covered with dew or in very dry conditions or high temperatures. Very toxic to aquatic organisms. May cause long-term adverse effects in the aquatic environment. Avoid water pollution. Take precautions to prevent product reaching fluvial channels, water sources and public sewers. Inform responsible authorities in case of spills or uncontrolled discharges in waterways

Storage and disposal

Keep in original container, tightly closed, in a safe place.
 Rinse out container thoroughly, by using an integrated pressure rinsing device or manually rinsing three times. Add washings into spray tank and dispose of safely.
 Keep out of reach of children
 Keep away from food, drink and animal feedingstuffs.
 When using do not eat, drink or smoke.
 Keep dry and frostproof in a suitable pesticide store

Environmental Risk Mitigation:

	MATERIAL SAFETY DATA SHEET		Page 7 of 12
Name of the Product: PATROL 2,5 WG	Code N°	Revision	Date
Registry N°: 14.394	HS-7089	1	09-07-15

P273: Avoid release to the environment.
P391: Collect spillage.
P501: Dispose of contents/ containers in accordance with local regulations.

IX.- PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance

Physical state: Free Granular solid, without caking.

Color: Light brown.

Odor: Characteristic odour, slightly pungent

pH: 6,46 (dilution at 1 % in Water CIPAC MT 75). Acidity or alkalinity not applicable: 6<pH<8

Melting point/freezing point: Not applicable

Initial boiling point and boiling range: Not applicable.

Flash point: Not flammable >100°C.

Evaporation rate: Not applicable

Flammability (solid, gas): Non flammable.

Autoignition temperature: >400°C (EEC A16). Flame did not propagate along trail. (EEC A 10)

Burning time: Not available

Burning rate: Not available

Upper/lower flammability or explosive limits: Not available

Vapour pressure: Not applicable. $2 \cdot 10^{-7}$ Pa at 20 °C (extrapolated) (Tech. *Lambda*-cyhalothrin)

Vapour density: Not applicable

Relative density: Not applicable (bulk 0,75 g/mL (CIPAC MT169.)

Solubility (ies): -- Hydrosolubility: Insoluble in water. Dispersible.

- Liposolubility (solvent oil to be specified): Technical *Lambda*-cyhalothrin, at 21 °C, solubility >500 g/L in: hexane, toluene, dichloromethane, methanol, acetone and ethyl acetate.

Octanol/water partition coefficient: Not available. $\log P_{ow} = 7$ (Tech. *Lambda*-cyhalothrin.)

Auto_ignition temperature: Not shows self-ignition temperature

Decomposition temperature: Not available :=> 140 ° C

Viscosity: **Dynamic:** Not applicable

Kinematic: Not applicable

Explosive properties: Non explosive. **Dust/air mixture** may be explosive.

Oxidizing properties: Formulation is not oxidizing. Sample did not react vigorously. (EEC A 17).

X.- STABILITY AND REACTIVITY

10.1 Reactivity: No specific test data related to reactivity available for this product or its ingredients.


10.2 Chemical stability: The product is stable under normal temperatures and storage conditions.

10.3 Possibility of hazardous reactions: Under normal conditions of storage and use, hazardous reactions will not occur. Product decomposes with emission of toxic fumes at high temperatures. Does not undergo polymerization or produce hazardous reactions.

10.4 Conditions to avoid: No specific data. High temperatures >140°C. See Section VII, Avoid contact with excessive heat, sparks, open flame or other sources of ignition. Avoid swallowing, inhalation of dust or contact with eyes and skin. Avoid contamination of water.

10.5 Incompatible materials: No materials to be especially mentioned but avoid contact with strong oxidisers.

10.6 Hazardous decomposition products: Thermal decomposition of the product may produce toxic oxydes of Carbon and Nitrogen, Hydrogen chloride and Hydrogen fluoride fumes.

	MATERIAL SAFETY DATA SHEET		Page 8 of 12
	Name of the Product: PATROL 2,5 WG	Code N°	Revision
Registry N°: 14.394	HS-7089	1	09-07-15

Under normal conditions of storage and use, hazardous decomposition products should not be produced. Dust may form explosive mixture with air. No decomposition if stored and handled as indicated.

XI.- TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:

11.1.1 Acute toxicity:

	<u>PATROL 2.5 WG</u>
Acute toxicity – ORAL	1000mg/kg (♀)
DL ₅₀ mg/kg p.c. (rat)	
Acute toxicity – DERMAL	>2000 mg/kg (♀ y ♂)
DL ₅₀ mg/kg p.c. (rata)	
Acute toxicity – INHALATION	>5.270 mg/L (♀ y ♂)
CL ₅₀ mg/L 4h. (rat)	

11.1.2 Irritation:

EYE IRRITATION (rabbit)	Non irritant. (♀)
SKIN IRRITATION (rabbit)	Non irritant. (♂)

11.1.3 Corrosivity: There are no evidence of this effect.

11.1.4 Sensitisation:

SKIN SENSITIZATION (maximization test on Guinea pigs, M&K test)	Not a sensitizer (♀ y ♂)
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11.1.5 Repeated dose toxicity:

11.1.6 Carcinogenicity: There are no evidence of carcinogenicity.

11.1.7 Mutagenicity: There are no evidence of this effect.

Chronic Toxicity	
NOAEL (rat)	2 mg/kg p.c.
Carcinogenesis	No
Mutagenesis	No
Sensitisation	No

11.1.8 Toxicity for reproduction: There are no evidence of this effect nor teratogenic effects.

11.2 Effect on likely routes of exposure:

Inhalation: Non likely route of exposure.


Ingestion: Harmful

Skin Contact: None.

Eye Contact: None.

11.3 Symptoms related to the physical, chemical and toxicological information: See section 4.2.

11.4 Effects chronically delayed and immediate exposure: None (based on the studies on the active substance)

	MATERIAL SAFETY DATA SHEET		Page 9 of 12
	Name of the Product: PATROL 2,5 WG	Code N°	Revision
Registry N°: 14.394	HS-7089	1	09-07-15

11.5 Effects Interactive: Not available.

XII.- ECOLOGICAL INFORMATION

12.1 Toxicity:

Acute aquatic toxicity:

Toxicity fish:

Rainbow trout: CL₅₀ (96h.)= 0,36 µg/l (*Lambda*- cyhalothrin)

Bluegill sunfish: CL₅₀ (96h.)= 0,21µg/l (*Lambda*- cyhalothrin)

Lepomis macrochirus: CL₅₀ (96h.)= 0,21 µg/l (*Lambda*- cyhalothrin)

Toxicity birds: LD₅₀ (mallard duck)> 3950 mg/kg (*Lambda*- cyhalothrin).

Toxicity Daphnia: Daphnia magna (48 h.) EC₅₀= 0,36 µg/l (*Lambda*- cyhalothrin)

Toxicity Algae and other Aquatic Plants: Algae (*Seleastrus capricornutum*): E_rC₅₀ >1000 µg/l (*Lambda*- cyhalothrin)

Toxicity bees (Lab. contact) LD₅₀ (48 h) = 0,038 µg/bee (*Lambda*- cyhalothrin)
(Lab. oral) LD₅₀ = 0,91 µg/bee (*Lambda*- cyhalothrin)

Ecotoxicology of PATROL

Acute tox honeybee	LD ₅₀ =21,76µg fp/bee (oral, 48h) LD ₅₀ =3,65µg fp/bee (contact, 48h)
Extended lab test- T. pyri	LR ₅₀ =0.0012 kg fp/ha (7d) reproduction effect: no more than 50% reduction
Extended lab test- A. rhopalosiphi	LR ₅₀ =0.8 kg fp/ha (48h) reproduction effect: not significant for the tested doses

12.2 Persistence and degradability: Degrades quickly in soils. Microbial degradation half life in soils of DT₅₀: 23-82 days; in field; 6-40 days. Hydrolytic and oxidative degradation also occur. Degradation in water is quick. In lab.: DT₅₀: 5-11 h. In microcosmos DT₅₀ <3 h.; Rapid and extensive degradation of the parent compound in aquatic systems. In aquatic laboratory sediments, DT₅₀ is 7-15 days; in a microcosmos study DT₅₀ <3 h and DT₉₀ <3d.


12.3 Bioaccumulative potential: Is not bioaccumulative in aquatic organisms. The rate of disappearance in water is even greater in the presence of plants, since extensive adsorption and an increase of degradation take place. log P_{ow} = 7,0 (*Lambda*-cyhalothrin.). This preparation contains no substance considered to be persistent, bioaccumulative and toxic (PBT). This preparation contains no substance considered to be very persistent or bioaccumulative (vPvB).

12.4 Mobility in soil: Low lixiviation in soils of *Lambda*-cyhalothrin and its metabolites. Not significant. It is strongly adsorbed to soil and organic matter sediments. K_{oc}: 38000 - 345000

12.5 Results of PBT and vPvB assessment: This preparation contains no substance considered to be persistent, bioaccumulative and toxic (PBT). This preparation contains no substance considered to be very persistent or bioaccumulative (vPvB).

12.6 Other adverse effects: The oxidative photochemical degradation of *Lambda*-cyhalothrin in air is DT₅₀ 4,1 h. (calculated). The volatilization from soil is not significant and from the very low leaves (88% of the applied quantity remain on the leaves after 24 h).

XIII.- DISPOSAL CONSIDERATIONS

	MATERIAL SAFETY DATA SHEET		Page 10 of 12
Name of the Product: PATROL 2,5 WG	Code N°	Revision	Date
Registry N°: 14.394	HS-7089	1	09-07-15

13.1 Waste treatment methods:

-Product:

Methods of disposal: The generation of waste should be avoided or minimized wherever possible. Significant quantities of waste product residues should not be disposed of via the foul sewer but processed in a suitable effluent treatment plant. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.

Hazardous waste: Within the present knowledge of the supplier, this product is not regarded as hazardous waste, as defined by EU Directive 91/689/EEC.

European waste catalogue (EWC) Waste code Waste designation: Not available.

-Packaging:

Methods of disposal: The generation of waste should be avoided or minimized wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

Special precautions: This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Observe all federal, state and local regulations when disposing of this substance. Disposal must be in accordance with standards applicable to generators of hazardous wastes. Procedure: For disposal, incinerate this material at a facility that complies with local, state, and federal regulation

XIV.- TRANSPORT INFORMATION

ADR/RID ADN/ADNR IMDG IATA

14.1 UN number: 3077.

14.2 UN proper shipping name:

ADR/RID: "UN3077, Environmentally hazardous substance, solid, n.o.s. (LAMBDA CYHALOTHRIN)9, III, (E)"

IMDG: "UN3077, Environmentally hazardous substances, solid, n.o.s. (LAMBDA CYHALOTHRIN)"

IATA: "UN3077, Environmentally hazardous substances, solid, n.o.s. (LAMBDA CYHALOTHRIN)"

14.3 Transport hazard class(es): 9

14.4 Packing group: III

14.5. Environmental hazards: Marine pollutant

14.6 Special precautions for user:


Hazard identification number: 90

Maritime Transport (IMDG): IMDG (page): 9029.

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code: Not provided the bulk transport of this product only in the presentations.

ADR / RID Note: Exemption from ADR in limited quantities for packaging: The packaging combined with a total weight not exceeding 30 kg are exempt provided that each individual container not exceeding 5 kg.

XV.- REGULATORY INFORMATION

	MATERIAL SAFETY DATA SHEET		Page 11 of 12
Name of the Product: PATROL 2,5 WG	Code N°	Revision	Date
Registry N°: 14.394	HS-7089	1	09-07-15

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

Directive 91/689/EEC on hazardous waste.

Directive 91/156/EEC on waste.

EC Regulation 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals REACH.

Regulation (EU) No. 453/2010, amending Regulation (EC) No. 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).

Regulation (EU) No. 2015/830, amending Regulation (EC) No. 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).

Regulation (EC) 1272/2008 on classification, labeling and packaging of substances and mixtures.

European Agreement concerning the International Carriage of Dangerous Goods by Road (ADR).

International Maritime Dangerous Goods (IMDG: International Maritime Dangerous Goods)

Dangerous Goods Regulations by the International Air Transport Association (IATA: International Air Transport Association)

Annex XIV _ List of substances subject to authorization Substances of very high concern

Carcinogen-Mutagen-Toxic to reproduction-PBT-vPvB:

Annex XVII _ Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles : Not applicable.

Other EU regulations Europe inventory : All components are listed or exempted.

Integrated pollution prevention and control list (IPPC) _ Air : Not listed

Integrated pollution prevention and control list (IPPC) _ Water : Not listed

Aerosol dispensers : Not applicable.

National regulations International regulations Chemical Weapons Convention List Schedule I Chemicals : Not listed

Chemical Weapons Convention List Schedule II Chemicals : Not listed

Chemical Weapons Convention List Schedule III Chemicals : Not listed

15.2 Chemical Safety Assessment : Not available.

XVI.- OTHER INFORMATION

Reason for the revision: Adapted to CLP, REACH Regulation 1907/2006/CE, 453/2010 Regulation and 2015/830 Regulation. Information has been adapted with CLP decision translation in Greece.

Abbreviations and acronyms : ATE = Acute Toxicity Estimate

CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]

DNEL = Derived No Effect Level

EUH statement = CLP-specific Hazard statement

PNEC = Predicted No Effect Concentration

RRN = REACH Registration Number

PBT = Persistent, Bioaccumulative and Toxic

vPvB = Very Persistent and Very Bioaccumulative.

Hazard Statement of components in section III:


H330: Fatal if inhaled

H301: Toxic if swallowed

H312: Harmful in contact with skin

H410: Very toxic to aquatic life with long lasting effects

Recommendations concerning training: Agricultural insecticide. USE RESTRICTED TO FARMERS AND PROFESSIONAL AGRICULTURAL SPRAY APPLICATORS for approved agricultural crops and cultures as

	MATERIAL SAFETY DATA SHEET		Page 12 of 12
Name of the Product: PATROL 2,5 WG	Code N°	Revision	Date
Registry N°: 14.394	HS-7089	1	09-07-15

stated on the label. TO AVOID RISKS TO MAN AND THE ENVIRONMENT, COMPLY WITH THE INSTRUCTIONS FOR USE.

SP1: DO NOT CONTAMINATE WATER WITH THE PRODUCT OR ITS CONTAINER. (Do not contaminate water by cleaning of equipment near superficial waters / Avoid contamination via farm or road sewage systems.)

Cultivation techniques and physical biological methods to reduce the population of insects and to reduce the number applications to the absolutely necessary effective control.

Applications only when necessary based on possibly existing levels of financial loss.

The agent should be applied to recommended doses and in a way that ensure good and uniform coverage leaf surface with the spray liquid.

Avoid consecutive applications with PATROL 2,5 WG. Apply rotation with other insecticides from a different group with different mode of action and conduct systematic monitoring of Populations of pests / targets to be identified in time possible development of resistances. If identified areas of reduced efficiency applications further sprayings should be made with preparations of different insecticides group

Recommendations concerning usage: This material safety data sheet has been issued in accordance with. CLP, REACH Regulation 1907/2006/CE, and its amendments 453/2010 Regulation and 2015/830 Regulation.

The data included in this material security data sheet are based on the best of our knowledge and are as accurate as possible. However, the above named supplier, assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. They do not constitute a contractual guarantee of the product's properties. They must not be altered nor transferred to other products.

Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

Annex to the extended Safety Data Sheet (eSDS)

Identification of the substance or preparation - Product definition : Multi constituent insecticide preparation - Product name : PATROL 2.5 WG.